

REMARKS

The Examiner's action of August 13, 2009 has been given careful consideration. Claims 1-4, 7, 9 and 11-18 are currently pending and are under consideration in the subject application. The recognition of allowable subject matter is acknowledged and appreciated. Nonetheless, reconsideration of the application is hereby respectfully requested.

The Office Action

The Examiner objected to the title as allegedly not being descriptive.

The Examiner rejected claims 1 and 12-13 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out the invention.

The Examiner rejected claims 1-3, and 12-13 under 35 U.S.C. §102(b) as being anticipated by Chiang (U.S. 6,191,850).

The Examiner rejected claims 16-17 under 35 U.S.C. §102(b) as being anticipated by Cochran (U.S. 4,882,498).

The Examiner rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over Chiang in view of U.S. Patent No. 6,207,946 to Jusoh *et al.*

The Examiner rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over White (U.S. 6,273,338) in view of White (U.S. 5,684,530).

The Examiner objected to claims 4, 9, 15 and 18 as being dependent upon a rejected base claims, but would be allowable once the 112 rejections are overcome and if rewritten in independent form.

I. Objection to the Title

The Examiner objected to the title. However, the applicants submit that the title is sufficient. Reconsideration and/or clarification of the Examiner's concern is respectfully requested.

II. Rejection of Claims 1 and 12-13 Under 35 U.S.C. §112, Second Paragraph

The Examiner rejected claims 1 and 12-13 under 35 U.S.C. §112, second paragraph as having insufficient antecedent basis for the phrases "the part under inspection" and "the object under test." This rejection should be withdrawn for at least

the following reasons. The subject claims have been amended, and have sufficient antecedent basis for the phrase “the part under inspection.” Claim 12 no longer recites “the object under test.” Accordingly, it is respectfully requested that this rejection be withdrawn.

III. Rejection of Claims 1-3, 12 and 13 Under 35 U.S.C. §102(b)

The Examiner rejected claims 1-3, 12 and 13 under 35 U.S.C. §102(b) as being anticipated by Chiang. It is respectfully requested that this rejection be withdrawn for at least the following reason. The cited portions Chiang fails to disclose or suggest each and every element of the subject claims.

Generally, the subject application relates to patterned illumination fields to facilitate inspection of specular objects. To this end, independent claim 1 recites a *receiver aperture positioned to receive light of a reflected image field including dark field regions corresponding to the lighting voids generated by the patterned illuminator, wherein the **dark field regions illuminate a specular artifact on the part under inspection***. Chiang fails to disclose or suggest this claimed aspect.

Chiang appears to disclose a system for inspecting the surface of an object. A structured illuminator projects a grid onto the surface of Chiang, and the grid is then viewed by a camera. The projected grid is then analyzed for structure, and if the projected grid is distorted, the object can be found defective.

Chiang does not disclose that **dark field regions illuminate a specular artifact on the part under inspection**. In Chiang, any light received is to ascertain the integrity of a grid, and does not indicate a specular artifact. The system disclosed in Chiang is focused on the comparison of structural characteristics of the grid lines. Such a comparison may indicate dimples, ridges, or other deviations of the object's surface geometry. Although the dimples or ridges may distort the grid, it is submitted that a user of Chiang would not be able to ascertain that the defect in structure is indicative of a specular artifact. Instead, a user would see a general defect in the structure of the grid. Thus, Chiang fails to disclose or suggest **dark field regions illuminate a specular artifact on the part under inspection**, as claimed.

In view of the foregoing, it is readily apparent that the cited portions of Chiang fail to disclose or suggest each and every element of the claimed subject matter, as recited by

independent claims 1, and 14 (and associated dependent claims 2-3). Therefore, it is respectfully requested that this rejection be withdrawn.

IV. Rejection of Claims 16-17 Under 35 U.S.C. §102(b)

The Examiner rejected claims 16-17 under 35 U.S.C. §102(b) as being anticipated by Cochran. It is respectfully requested that this rejection be withdrawn for at least the following reason. The cited portions of Cochran are silent regarding ***dark field regions illuminate a specular artifact on the part under inspection***. Accordingly, this rejection should be withdrawn with respect to independent claims 16 and 17.

V. Rejection of Claim 7 Under 35 U.S.C. §103(a)

The Examiner rejected claim 7 under 35 U.S.C. §103(a) as being unpatentable over Chiang in view of Jusoh. It is respectfully requested that this rejection be withdrawn for at least the following reason. Claim 7 depends from independent claim 1, and the cited portions of Jusoh fail to remedy the aforementioned deficiencies of Chiang with respect to independent claim 1. Accordingly, this rejection should be withdrawn.

VI. Rejection of Claim 14 Under 35 U.S.C. §103(a)

The Examiner rejected claim 14 under 35 U.S.C. §103(a) as being unpatentable over White in view of White. It is respectfully requested that this rejection be withdrawn for at least the following reason. The cited portions of White and White, whether taken alone or in combination, fail to disclose or suggest the subject claims.

White '338 appears to disclose detection of surface defects by using a fresnel lens. However, the cited portions of White '338 is silent with respect to ***dark field regions illuminate a specular artifact on the part under inspection***, as independent claim 14 recites. Moreover, the cited portions of White '538 are also silent with respect to at least this claimed aspect. Accordingly, the cited portions of the references cannot be combined to render the subject claim obvious. Thus, this rejection should be withdrawn.

CONCLUSION

For the reasons detailed above, it is respectfully submitted all claims remaining in the application (Claims 1-4, 7, 9 and 11-18) are now in condition for allowance.

In the event the Examiner considers personal contact advantageous to the disposition of this case, he/she is hereby authorized to telephone Joseph D. Dreher, at 216.363.9000.

Respectfully submitted,

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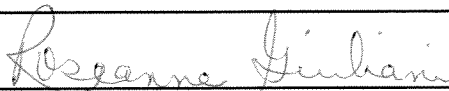
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